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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,855	02/20/2004	Werner Doetsch	038715.53046US	1653
23911 7590 02/21/2007 CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP P.O. BOX 14300 WASHINGTON, DC 20044-4300			EXAMINER SAYALA, CHHAYA D	
			ART UNIT 1761	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/21/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/781,855

Applicant(s)

DOETSCH ET AL.

Examiner

C. SAYALA

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 4-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1, 4-11 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The limitation "on a molecular level" could not be found in the specification, neither was such a concept. Upon applicant pointing out where this occurs this rejection will be withdrawn. If applicant cannot locate basis for this limitation either, it is required that all references to this be cancelled. This is a new matter rejection.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 4-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not clear what "homogeneously distributed within the mixed calcium/magnesium peroxide on a molecular level" means. There is no definition of what this means in the specification either.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doetsch et al. (US Patent 6193776) in view of GB 1580248 and further in view of GB 1575792.

Doetsch et al. teach homogeneous calcium/magnesium peroxide with an active oxygen content of 10-18% by wt. The composition includes a peroxygen stabilizing amount of a stabilizer. (See claim 11). A process for preparing this homogeneous calcium/magnesium peroxide composition is also taught. See col. 3, lines 15+ which discloses the details of preparation of such a homogeneous composition of calcium/magnesium peroxide including stabilizer: an aqueous suspension of calcium and magnesium hydroxides are reacted together with aqueous hydrogen peroxide. The water is evaporated and the product is dried. Small amounts of stabilizer are added before, simultaneously or after the reaction with hydrogen peroxide. This results in the product having calcium peroxide and magnesium peroxide *homogeneously distributed*

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*in each other on a molecular level.* See claim 4. The patent does not teach a boron content or boron compounds.

The GB '248 teaches a calcium peroxide amount of up to 50% and 0 to 5% of boric acid in a solution which are fed into a granulator and then dried. A granulator inherently would mix the ingredients to homogeneity. The patent teaches treating sugar beet seeds with calcium peroxide, 0.01 and 90.0% by weight, for improving the quality of the beet. The boron additive is added in an amount 0 to 10%, preferably 0 to 5% by wt. (see page 2, lines 10-25; page 1, lines 25-30). At page 2, lines 25+, the patent teaches how to coat the beet seeds with calcium peroxide and the compounds "used for improving the quality of the beet such as for example boron derivatives, in particular boric acid, borax and sodium perborate". At page 2, line 26, the patent states "The coating operations can be carried out in any manner known in itself in various types of apparatus known in themselves, including for instance, granulators. These are fed with seed, calcium peroxide and possibly fillers, **water** and other additives. The resulting grains are then dried." (emphasis added).

Thus '248 also teaches essentially a similar method, which is taking calcium peroxide and the boron compound *in water*, reacting it in the presence of the seed, and then drying it.

GB '792 teaches that peroxygenated compounds have a high stability with compounds such as sodium perborate. Line 53 at page 1 states "In order to improve the stability of the peroxygenated compounds it has also been suggested that the peroxygenated compounds be mixed in the solid phase with metaboric acid". Such a

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teaching provides motivation to substitute the stabilizers of Doetsch et al. with stabilizing compounds shown by '792 and to incorporate such in the primary patent as functionally achieving the stabilization of the homogeneously distributed peroxygen compound on a molecular level.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the peroxygenated compounds of the primary references with boric acid, which adds stability to the peroxygenated compounds, as taught by the method of Doetsch et al., i.e. by adding the boron compound and the peroxygen compound with water so as to give a suspension and/or solution and reacting them together and drying them out. This is the same method used by '248 to coat beet seeds. See page 2, lines 25-30 in '248. To substitute the method of Doetsch et al. with boron compounds which are shown to stabilize peroxygenated compounds, when Doetsch et al. already uses stabilizers, would have been prima facie obvious. Further, since Doetsch et al. teach the method of obtaining products that are homogeneously distributed on a molecular level, even with stabilizers, then to follow the same method with boron compounds would have been obvious to one of ordinary skill in the art at the time the invention was made with the reasonable expectation that the compounds are homogeneously distributed on a molecular level. GB '792 provides the motivation to make the substitution of boron compounds for the Doetsch et al. stabilizers, since the patent teaches that boron compounds are stabilizers for peroxides *and* the GB '248 patent teaches coating beet seeds with peroxygen and boron compounds combined in a water solution and drying them, steps also followed by

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Doetsch et al. Note '792 at page 3, line 108 and page 4, line 56, which include the concept of homogenization in its incorporation of peroxide and boron compounds.

### ***Response to Arguments***

Applicant's arguments filed 11/30/06 have been fully considered but they are not persuasive.

Applicant's entire traversal has been made on the basis of that the references do not teach a seed coating process that results in boron being homogeneously distributed within the mixed calcium/magnesium peroxide on a molecular level. While the basis for such could not be found in the specification as originally filed, the reference to Doetsch et al. teaches preparing a homogeneously distributed peroxygen mixture of calcium and magnesium compounds "on a molecular level". Such a homogeneous distribution on a molecular level is obtained by mixing the peroxide suspension with aqueous hydrogen peroxide and drying the reaction product. See Doetsch et al. in the claims. GB '248 also shows coating beet seeds in a similar manner. The patentee combines the peroxide, boron compound, seed and **water** and the product is dried. GB '792 provides the motivation to combine boron compounds with the peroxygen compounds of Doetsch et al., who already uses stabilizers, based on the disclosure of GB '248 that not only teaches combining boron compounds and peroxides in a similar manner but also teaches coating beet seeds with the combination. The motivation is this: boron compounds stabilize peroxygen compounds.

At page 5 of his response applicant holds that GB 248 would not result in a homogeneous distribution on a molecular level. The grounds for this position is not clear since as explained in the rejection, Doetsch et al. shows a homogeneous distribution on a molecular level by simply mixing a suspension of calcium peroxide with aqueous peroxide and drying the product. GB '248 shows a mixture of peroxide in water and the boron compound in water and the drying step too. Therefore, without more, it can be reasonably expected that the same would have resulted when the Doetsch et al. procedure is followed by using a boron compound stabilizer in solution, instead of the stabilizer used in the reference.

Applicant's reference to Summers' "Granulation" and reference to powder particles in order to establish patentability is not completely understood, since there are no powders involved. In any event, the rejection has been expanded so that a clearer picture is presented and it is to be reasonably expected that based on at least the combinations of Doetsch et al. and GB '248, the same homogeneous distribution of the compounds on a molecular level would have been achieved for the reasons discussed in the rejection. However, it has been well established that any advantage relied upon to urge patentability of an invention should be set forth in the specification. *Graham v. John Deere Co.*, 148 USPQ 459 (USSC 1966), *General Tire & Rubber Co. v. Jefferson Chemical Co.*, 182 USPQ 70 (CA 2 1974). Therefore, even though there is no basis for molecular level homogeneity in the specification, it is well settled that a patent cannot be properly granted for [an invention] which would flow naturally from the teaching of the prior art. *American Infra-Red Radiant Co. v. Lambert Indus., Inc.*, 360 F.2d 977, 986



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[149 USPQ 722 (CCPA 1958)), (8th Cir.) (quoting *Application of Libby*, 255 F.2d 412  
[118 USPQ 194 (CCPA 1958)), *cert. denied*, 385 U.S. 920 [ 151 USPQ 757 ] (1966).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. SAYALA whose telephone number is 571-272-1405.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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